

# Systems Engineering on Fire

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**WPI**





Our Ancestors  
Struggled with  
Technology.





A SpaceX Falcon Heavy rocket is shown in space, positioned vertically on the left side of the frame. The rocket is white with black lettering that reads "SPACEX" vertically. The background features a large, reddish-orange planet, likely Mars, with numerous craters and a bright horizon line. The sky is filled with stars and a nebula. The text "But Where are We Headed?" is overlaid in white, sans-serif font across the center of the image.

But Where are We Headed?



# Let's Start with a Short Quiz

Prizes will be awarded!



I was thinking  
recently  
about how to  
use AI at  
work.

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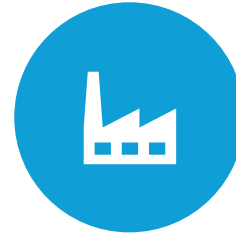
# Enter the Productivity Paradox



“New technologies are known to displace jobs. Therefore, productivity should remain constant as new technologies are introduced. However, productivity continues to increase after each era.”



AGRICULTURE-  
TO-INDUSTRY



INDUSTRY-TO-  
INFORMATION



INFORMATION-  
TO-INTERNET



INTERNET-TO-  
GENERATIVE AI

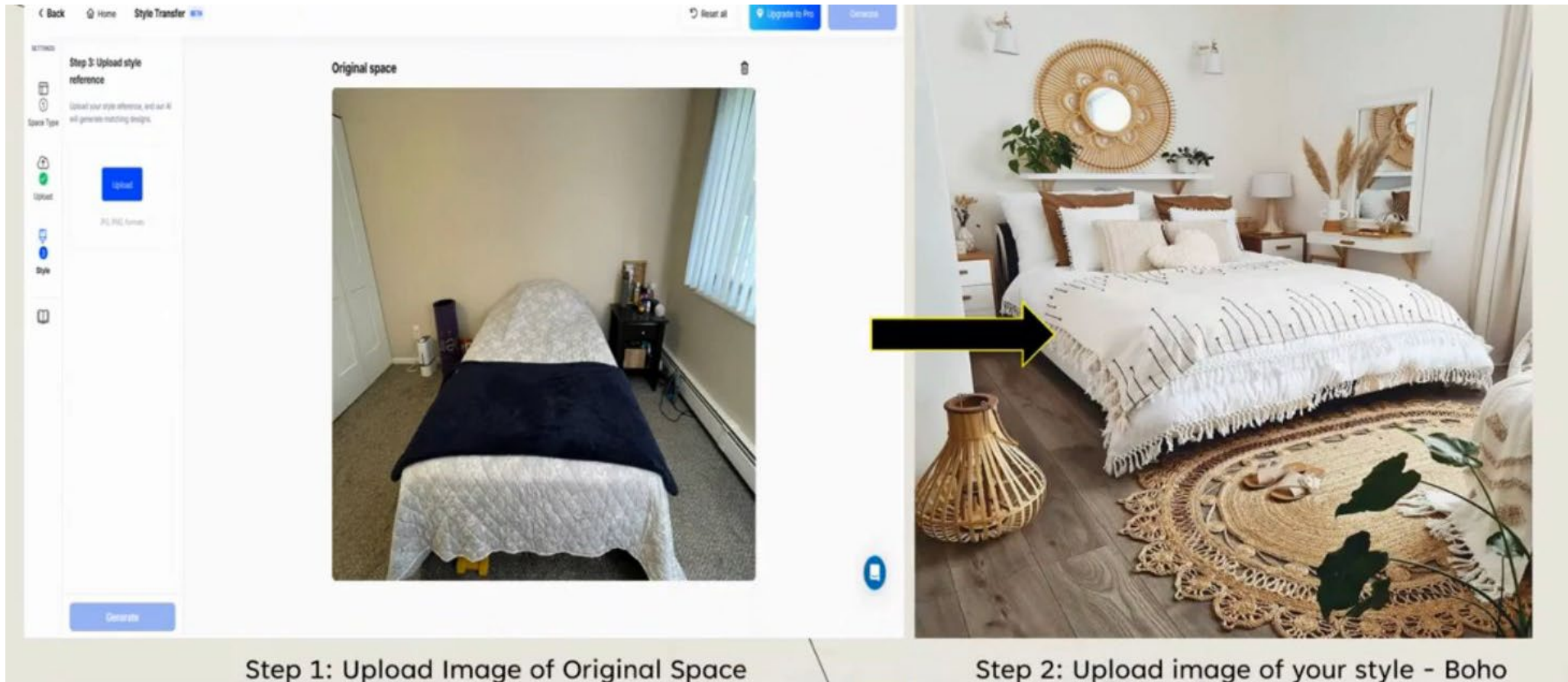




We Explored AI Tools  
in a Grad Seminar.

*One group redesigned a bedroom.*





# Redesigning a Bedroom



## RESULTS



Then, choose one of the resulting designs.



# Click and shop for design items

## Furniture detection



Upload new image

Found 82 Items

ALL Mirror Bed

Sort by: Relevance



**French Mid-Century ...**  
Ruby Lane, Mirror  
\$ 1,500



**Beautiful 1950s Fren...**  
1stDibs, Mirror  
\$ 929.75



**Tiwari Home 24" Gol...**  
Michaels, Mirror  
\$ 426.99



**Raffaella Wall Mirror J...**  
Wayfair, Mirror  
\$ 178



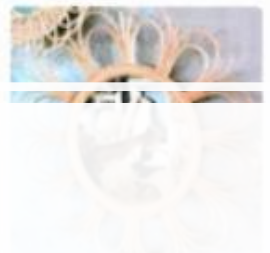
**Round Rattan Mirror ...**  
Etsy, Mirror  
\$ 48.57



**Two Tone Layered Cl...**  
Target, Mirror  
\$ 12.75



**Safavieh Harson Wall...**  
JCPenney, Mirror  
\$ 141.59



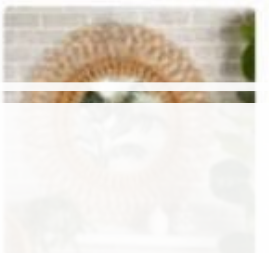
**Rattan mirror is flowe...**  
ethnicroftsmorecco.com, ...  
\$ 97.72



**Swedish Cane and R...**  
Chariblt, Mirror  
\$ 2,001



**Nogu Flower Shape R...**  
laredoute.com, Mirror  
\$ 69.48



**bali & pari Bora Mode...**  
Totally Furniture, Mirror  
\$ 61.99



**Arteaga bamboo mirr...**  
ventis.com, Mirror  
\$ 121.5





# Redesigned Another Room



# Role of the SE Professional vs. AI

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*In a distracted world, action occurs when there's a deadline, a facilitator, someone to answer to, a social element.*





# We Still Need SMEs.

*Engage*

*Listen*


*Critique*

*Coach*

*Entertain*


*Be accurate &  
trusted*





Scenario: You just got back from this Fall Workshop and you've been assigned to create a one-day AI workshop to deliver next week.



A digital illustration of a man in a dark suit and tie, sitting at a desk in an office. He is looking intently at a computer monitor, with his hands on the keyboard. The office environment is dimly lit, with light coming from a window with blinds in the background. The man's expression is one of focus and concern.

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Hello, this is AI.  
How may I help  
you?



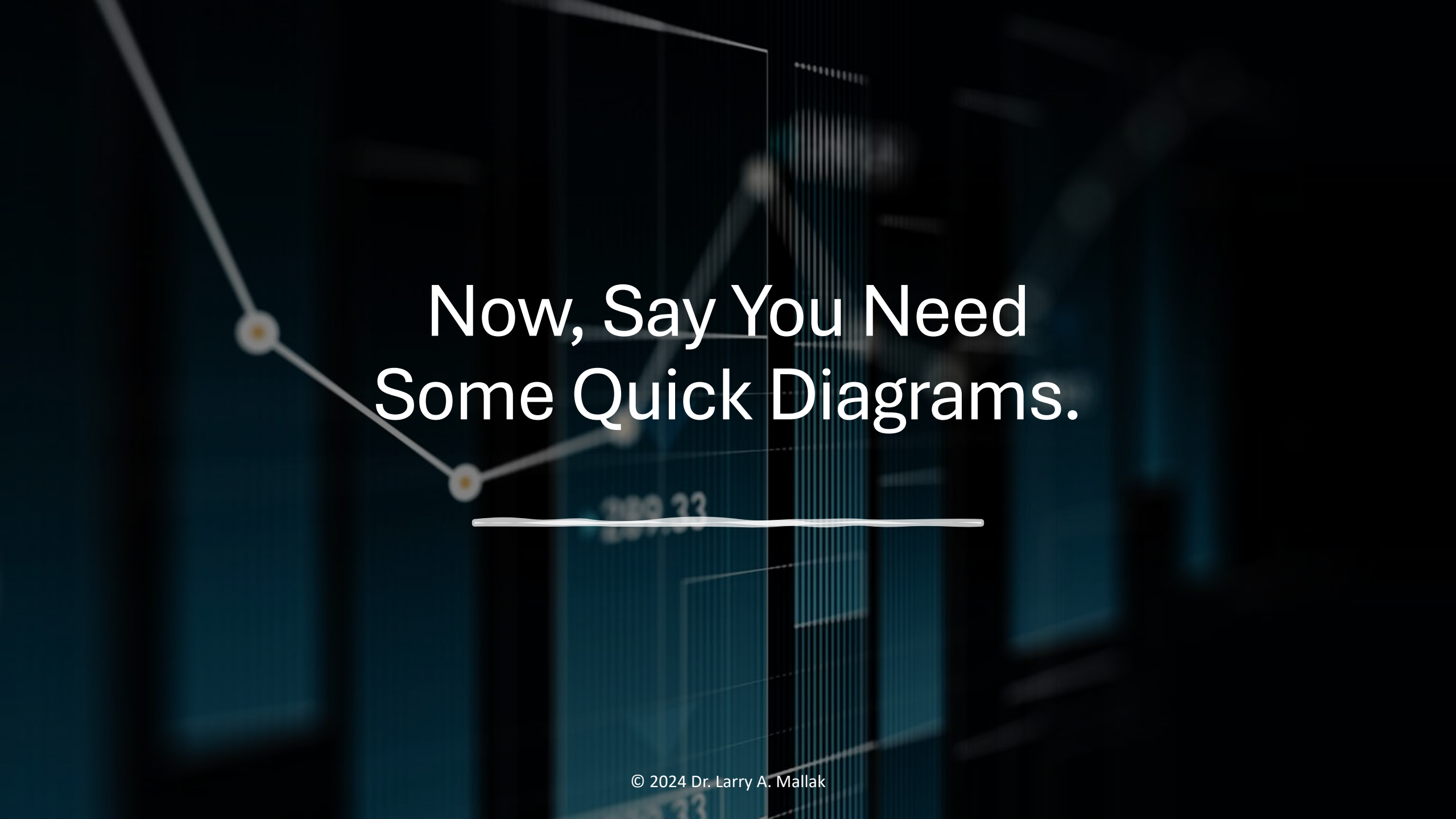
# Elapsed Time: 3.5 minutes

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- Yes, you'll need to tailor it.
- 80-90% of the work has been done.
- Am I obsolete or more productive?

*Note: Used "Professor EM" chatbot on ChatGPT 4o*

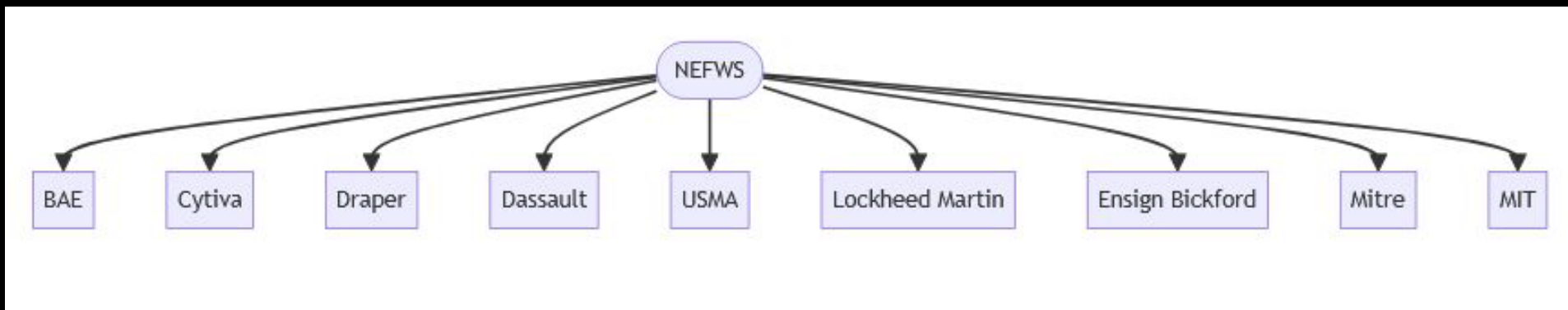
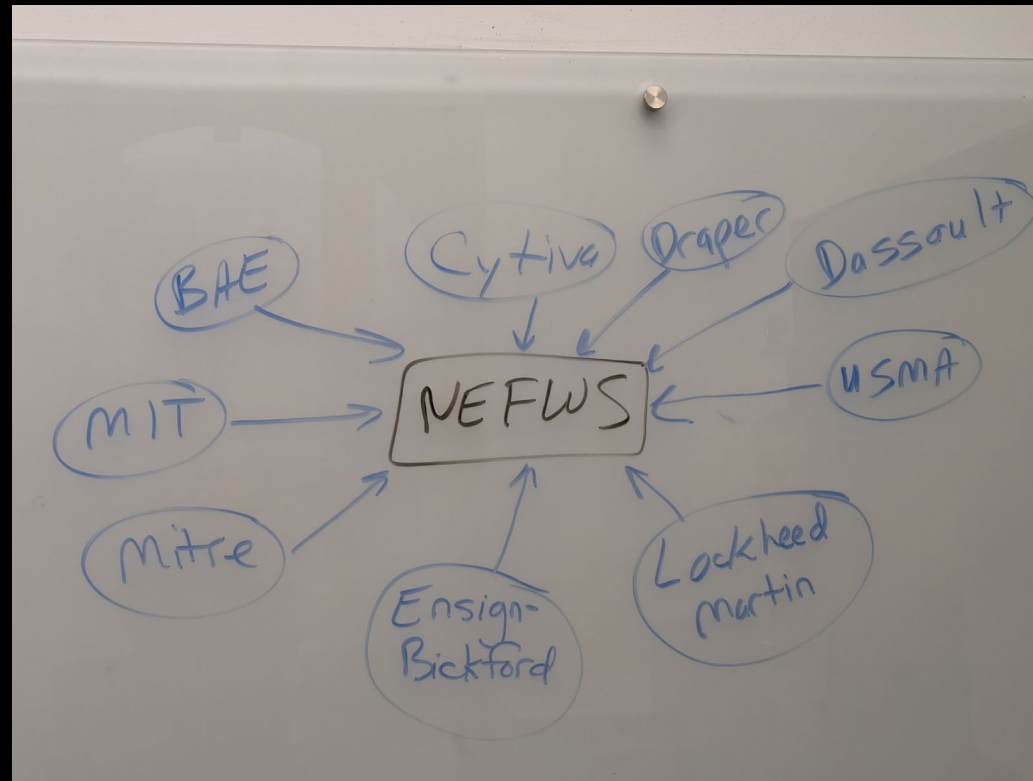
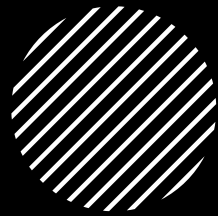


The background features a dark blue and black color scheme with faint, semi-transparent financial charts. On the left, a line graph with three data points is visible. In the center, a bar chart with several vertical bars is shown. On the right, a grid-like structure with horizontal and vertical lines is present. The overall aesthetic is modern and professional, typical of a business or financial presentation.

Now, Say You Need  
Some Quick Diagrams.



# Hand Drawn vs. AI





# Maybe You Need a Crash Course in Levels of Automation.

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Let Google create an AI podcast for you.



# A Model for Types and Levels of Human Interaction with Automation

Raja Parasuraman, Thomas B. Sheridan, *Fellow, IEEE*, and Christopher D. Wickens





## Back to Billy





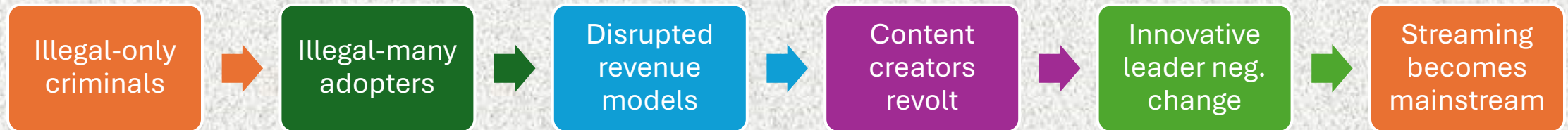


We've made this journey before.

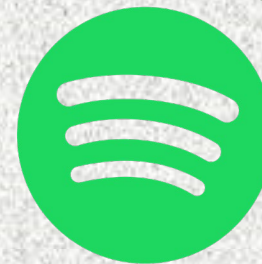




# Case: How did we get from CDs to streams?



13k of my artists make \$50k+.  
But I have 11 million artists.  
That's 0.12%.





# What will happen with AI and Systems Engineering?

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A large crowd of people is gathered at night in front of a grand, domed building, likely a university or government structure. The building has a prominent dome and classical architectural features. A bright fire is burning in the center of the crowd, casting a warm glow. The scene is illuminated by the fire and the building's lights, with a full moon visible in the dark sky. The overall atmosphere is one of a significant event or protest.

# Systems Engineering on Fire

Destruction or newfound energy?



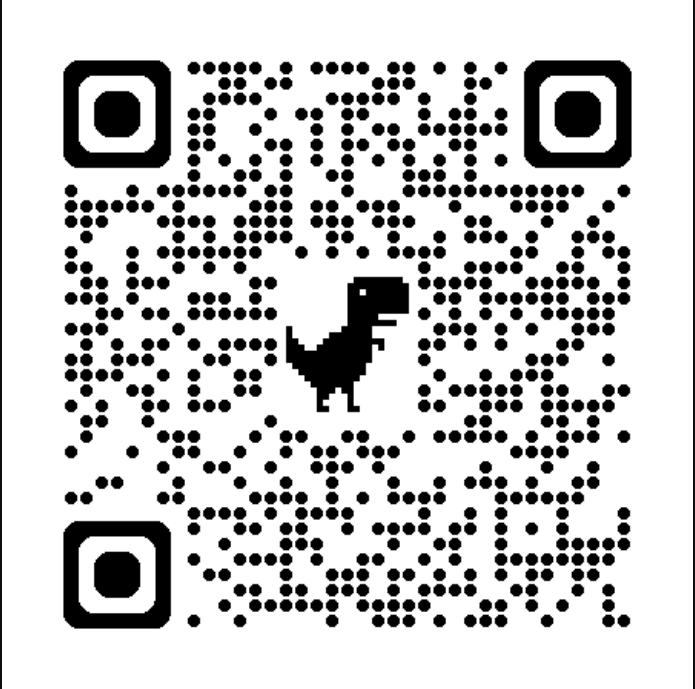
Thank you and enjoy your day with us!



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Ash Mhetre

